

**Amendments to the Abstract:**

In the abstract, please add the following new paragraph:

Methods and DNA constructs are provided for detection and manipulation of a target eukaryotic gene whose expression is restricted to certain tissues or specialized cell types. The methods include transforming a cell with a first indicator component under the control of a promoter selected for its restricted expression in a particular cell or tissue. The cell is also transformed with a gene trap vector encoding a second indicator component. The cell is allowed to differentiate to produce specialized cells or tissue which is monitored for expression of both the first and second indicator components, thereby detecting a gene into which the trap vector has integrated which is expressed in the same cell or tissue type as the selected promoter.